

50X1-HUM

<b>DA INTELLIGENCE REPORT</b> <i>(Use this form only in accordance with instructions.)</i>	<b>CONFIDENTIAL</b>	COUNTRY REPORTED ON Poland
---	---------------------	-------------------------------

		DATE 7 MAY 59
--	--	------------------

SUBJECT: Research on Infrared-proof Camouflage Paints in GLIWICE, Poland(C)		
---	--	--

SUMMARY
---------

**Of information:** This report contains information on a research project carried out by a chemical institute in GLIWICE, on infrared-proof camouflage paints for military use. The report includes a description of the research process and actual production of sample paints, results obtained, testing, production plans, and military interest in the project.

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for authority to reproduce will be directed to the Assistant Chief of Staff, G-2, Department of the Army.

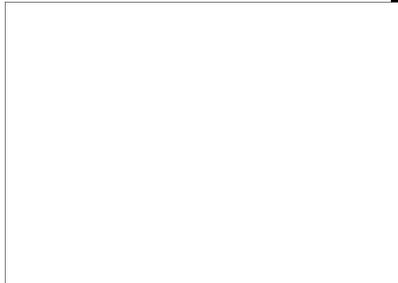
CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

50X1-HUM

DA FORM 1048  
1 OCT 58

REPLACES OCS FORM 17A, 1 APR 58, WHICH MAY BE USED.  
 CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.



**CONFIDENTIAL**

50X1-HUM

**Page Denied**

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SR 380-305-5)

**CONFIDENTIAL**

PAGE  
3

REPORT

1. General

The "Instytut Farb i Lakow w Gliwicach" (Paints and Lacquers Institute of GLIWICE), located in GLIWICE (UTM34UCA3674), Poland, has been engaged, since Jan 57, in a research program aimed at producing infrared-proof camouflage paints for military use. This program was initiated at the end of 1956 when the Polish Air Force requested the Ministry of Chemistry in WARSAW to supply infrared-proof camouflage paints for Air Force use. Since such paints were unknown in Poland at that time, the Ministry of Chemistry assigned it as a research project to the Institute, as part of the Institute's 1957 production plan. The actual research started in Jan 57, was still going on [redacted] in Nov 57, and [redacted] it is probably continuing.

50X1-HUM

By Nov 57, [redacted] seven different paints had been developed and had been accepted by the Air Force.

50X1-HUM

2. Administrative Details

Within the Institute, the research project was assigned to the Physical-chemical Department (see para 8, below) headed by FRITSCH, Maria, Fri. Three members (all female) of this department, including source, participated in the research. It was a classified project and all participating persons were warned, both by the department head and by the Institute's director, not to reveal it. A separate room was assigned to the three laboratory workers for the duration of the project, and research was carried out entirely inside that room. The site of the project was "off-limits" to all non-participating personnel with the exception of the department head and higher supervisors. Originally, a period of one year was allotted for the project, and it was scheduled to be finished by Dec 57. Because the Dec 57 deadline could not be met, the continuation of the project was planned as part of the Institute's 1958 production plan. However, the plan for 1958 had not yet been published [redacted]

50X1-HUM

3. Chronological Summary of the Research Steps

The period from Jan 57 to Apr 57 was spent in working on the elementary formulas and attempting to find suitable basic ingredients. The Air Force sent to the Institute, through the Ministry of Chemistry in WARSAW, sample colors

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for clarity to reproduce will be directed to the Assistant Chief of Staff, G2, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended, its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**

DA FORM 1048-1  
1 Oct 52

REPLACES GCS FORM 17C, 1 APR 53, WHICH MAY BE USED.  
CAUTION — REMOVE PROTECTOR SHEET BEFORE TYPING.

**CONFIDENTIAL**

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SR 380-309-5)

PAGE

4

ated on small metal plates and wooden boards. These sample colors were conventional-type camouflage paints of yellow and brown colors, and the Air Force's only requirement with respect to the projected infrared-proof camouflage paints was that their coloration be that of the conventional-type camouflage paints.

During the period from Jan 57 to Apr 57, several conventional-type (non-infrared-proof) camouflage paints were produced in the Institute and sent to the Ministry of Chemistry for approval. According to source, the actual approval was, not done in WARSAW by the Ministry of Chemistry, but in BRESLAU (UTM 33UXS4065), by an Air Force research institute, unidentified, where the sample paints were sent. This Air Force research institute was the agency with which the research institute in GLIWICE actually had to deal with in respect to the characteristics and requirements of the project infrared-proof paints, and later with respect to testing. The Ministry of Chemistry in WARSAW acted as an intermediary between the two agencies; all communications and material sent or received by the two institutes, located respectively in BRESLAU and GLIWICE, had to go through WARSAW.

After several basic paints had been accepted by the Air Force for colors, the second phase of the research program (making the accepted conventional-type camouflage paints infrared-proof) began. This lasted from Apr 57 to Jul 57. During this period, according to source, practically no successful results were achieved, because only inorganic pigments were used. In Jul 57, the inorganic pigments were mostly replaced by organic pigments, and the first paint was developed which was infrared-proof to a slight extent.

The period from Jul 57 to Nov 57 can be considered as the third phase of the research work. On the basis of the first so-called infrared-proof paints obtained in Jul 57, further experiments were carried out. By Nov 57, eighteen paints were developed and submitted to the Air Force. Out of these eighteen paints, seven were accepted as being infrared-proof to the extent required by the Air Force in view of their projected military use. However, because the accepted paints were not completely infrared-proof, the research program was continued with the goal of improving the infrared-proof characteristics. The paints were also inflammable but up until Nov 57, no research was undertaken to correct this. non-combustibility was not required by the Air Force.

50X1-HUM  
50X1-HUM

the research program is still in effect at present despite the fact that it was scheduled to be finished by the end of 1957 and despite the fact that seven paints are scheduled for production in 1958. in 1958, both research and production of the infrared-proof paints are being continued simultaneously.

50X1-HUM

4. Technical Description of the Research Process of Infrared-Proof Paint

50X1-HUM

within the scope of the research program, only enough of each paint was produced to apply to various objects for testing purposes, to send a small amount to the Air Force research institute, and to retain a sample at the Institute for further development. For the above three purposes, an amount, ranging from 5 to 10 kg, was produced, as the basic research quantity. The production of an identical amount of research paint in all instances greatly

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for authority to reproduce will be directed to the Chief of Staff, G-2, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**

DA FORM 1 OCT 55

1048-1

REPLACES GCS FORM 17C, 1 APR 53, WHICH MAY BE USED. CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SR 380-305-5)

**CONFIDENTIAL**

PAGE  
5

50X1-HUM

simplified the computation of the various chemical components and their use in the research process, and [redacted] the amounts of chemical components used, and the process itself.

The technical description given below is based on the actual production of an infrared-proof camouflage paint as it was done in the course of the research project in Nov 57.

Phase # 1 : Ten-kg linseed oil (Leinoel) is heated in a metal container and kept at a temperature of 285°C for a period of two hours. (The purpose of this heat-process is to produce a concentration (thickening) effect in the linseed oil, and, at the same time, to decrease its viscosity.) After the heat-process, the oil is left to cool at room temperature, i.e., 20°C. After cooling, the viscosity index of the oil, at room temperature, is 35 seconds. Through the heat process, the linseed oil also loses weight. [redacted] the weight of the linseed oil after the completion of Phase # 1 is in the vicinity of 9 kg.

50X1-HUM

Phase # 2 : The linseed oil, concentrated through the process as described in Phase #1, is mixed with mineral spirits (Lack-benzin) at the ratio of 1 : 1, at room temperature, through a cold-mixing process. The purpose of this phase is dilution (thinning) of the concentrated linseed oil. The effect of the dilution is twofold: It provides for a fast drying of the paint in the later phases of the process and it decreases the reflection factor of the ready paint considerably, thus adding to the paint's camouflage characteristics.

The result of Phase # 2 of the process is a diluted linseed oil in the amount of approximately 18 kg.

Phase # 3 : The mixture obtained as the result of the first two phases obtains two new elements, manganese and lead. The amount of manganese to be added is 0.25%, the amount of lead is 0.05% of the basic mixture. Neither the manganese, nor the lead, is added in pure form, but as a component of a chemical compound, called "sygative" (a trade name). The sygative is not produced by the Institute, but is obtained from commercial sources. There is a sygative for manganese, and a separate one for lead. The sygative containing manganese is usually composed of 95% oil and alkalis, and 5% manganese in liquid form. The sygative containing lead is usually composed of 90% oil and alkalis, and 10% lead in liquid form. However, the percentage figures given for the two metals are approximate figures only, indicating the average amount of manganese and lead contained in the sygatives used. Normally, each sygative obtained from commercial sources has a different manganese or lead content, but this content is still very much in the vicinity of 5% for manganese, and 10% for lead.

In order to determine the amount of sygatives needed to provide the required 0.25% of manganese and 0.05% of lead, first the manganese and lead contents of the respective sygatives must be determined through chemical analysis. After this has been done, it is relatively easy to determine the amount of each of the two sygatives necessary to add 0.25% manganese and 0.05% lead to the basic mixture.

For example, if the basic mixture obtained after the completion of the first two phases weighs exactly 18 kg, and if the sygatives to be used contain exactly 5% manganese and 10% lead, respectively, then 0.9 kg of the manganese-containing sygative is added and 0.09 kg of the lead-containing sygative is added. The 0.9 kg of manganese-containing sygative contains actually 45 gr of pure manganese, which, in turn, is 0.25% of 18 kg; and the 0.09 kg of lead-containing sygative contains actually 9 gr of pure lead, which, in turn, is 0.05% of 18 kg.

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for capability to reproduce will be directed to the Assistant Chief of Staff, G2, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**

DA FORM 1042-1  
1 OCT 58

REPLACES OCS FORM 170, 1 APR 53, WHICH MAY BE USED.  
CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

**POOR QUALITY ORIGINAL**

50X1-HUM

**CONFIDENTIAL**

PAGE

6

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SR 380-305-5)

The above mentioned example rarely exists with the round figures used, for, on one hand, the amount of the mixture obtained after the completion of the first two phases is usually not exactly 18 kg, but an amount expressible only by a fraction in the vicinity of 18; on the other hand, the percentage of the manganese or lead content of the respective sygatives are not exactly 5 or 10, but fractions in this vicinity. Thus, the manganese-containing sygative to be added is usually not exactly 0.9 kg, but a fraction in the vicinity of 0.9; and the lead-containing sygative to be added is usually not exactly 0.09 kg, but a fraction in the vicinity of 0.09.

50X1-HUM

the purpose of adding manganese and lead to the basic mixture is to provide for a faster drying effect of the ready paint. Both of these elements are added to the basic mixture through a cold-mixing process at room temperature.

Phase # 4 : To the mixture obtained as the result of the first three phases, chrome-yellow ( $K_2Cr_2O_7$ ) is added in non-crystallized (pulverized) form. The ratio of the basic mixture to the chrome-yellow is 2 : 3. Since the chrome-yellow is not in crystal form, it is insoluble; and when added to the basic mixture, it actually does not dissolve, but forms small lumps floating in the basic mixture.

Phase # 5 : The purpose of this phase is to crush the chrome-yellow lumps floating in the mixture in order to make them soluble and to cause them to be absorbed by the basic mixture. This is accomplished by a small "rolling mill" (Walzwerk), a device composed of a solid steel cylinder rotating inside of a hollow cylinder in such a manner that there is only a very narrow space (1-2 mm) left between the outer surface of the inner cylinder and the inner surface of the outer cylinder. The rolling mill is surmounted by a metal container from which the mixture slowly drips on the surface of the rotating inner cylinder. The rotating cylinder takes the particles of the mixture along, and crushes them against the inner surface of the outer cylinder. This process is repeated ten times and causes the chrome-yellow parts and lumps in the mixture to fall apart completely and to be absorbed by the basic mixture. The result of this process is a molasses-like mixture which is collected in another container placed below the rolling mill.

Phase # 6 : The molasses-like mixture receives new components, the organic dry pigments, such as lithium red (Lithol rot), Hansa yellow (trade name for a yellow pigment), organic green, Helligen blue (trade name for a blue pigment), chrome-yellow, etc. Only one of the above-listed organic pigments is added to the basic mixture, and its ratio to the basic mixture is 1 : 9. The choice among the organic pigments to be added to the basic mixture is determined by the color to be achieved. There is a close relationship between the coloration of the ready paint and the choice of one of the above listed pigments.

In addition to one organic pigment, another substance is added to the basic mixture: this is a non-organic pigment, usually the "Schwara PP" (trade name for a non-organic black pigment), or "Pariser blau" (trade name for a non-organic blue pigment). The amount of non-organic pigments added to the basic mixture is usually 0.7% of the basic mixture.

Since the pigments added to the basic mixtures are in a pulverized, insoluble form, they do not dissolve, but float in the basic mixture, similar to Phase 4 of the process.

NOTE: Reproduction of this document in whole or in part is prohibited if SECRET or TOP SECRET, except with permission of the issuing office. All requests for copies to reproduce will be directed to the Chief of Staff, G-2, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**DA FORM 1048-1  
1 OCT 53REPLACES GCS FORM 17C, 1 APR 53, WHICH MAY BE USED.  
CAUTION -- REMOVE PROTECTOR SHEET BEFORE TYPING.

**POOR ORIGINAL**

50X1-HUM

DA INTELLIGENCE REPORT  
(Use this form only in accordance with instructions in SR 380-305-5)

**CONFIDENTIAL**

PAGE  
7

Phase # 7 : The mixture obtained through the addition of organic and inorganic pigments is processed through the rolling mill three times, similar to Phase # 5 of the process. This treatment causes the insoluble pigments to fall into particles and to be absorbed completely by the mixture to which they were added.

With the completion of Phase #7 the paint is ready. It is a substance much thicker than ordinary paint, but it still can be applied with a brush. Its color is identical to the basic camouflage colors used by the Air Force, either brown or yellow, and several shades of these two basic colors.

5. Testing

Testing of the infrared-proof camouflage paints being researched is performed at two places: the Air Force research institute located in BRESLAU, already referred to previously; and the Hel Peninsula (refer to Incl 1) of which the Eastern half is a restricted area and is being used for military testing purposes. The testing is controlled and carried out entirely by the Air Force; the Institute itself does not participate in it. The Institute's role with respect to testing is to provide the infrared-proof camouflage paints to be tested in various forms. In this respect, there are two different procedures. First, the paint is applied in the Institute on small metal plates and wooden boards, and these objects are sent forward. Second, a small quantity of paint is sent forward to be applied by the testing agency on the various surfaces. This latter procedure is followed when the effectiveness of the paint is to be tested on large surfaces. It is impractical to paint and transport large objects, therefore, the paint itself is forwarded to the testing center.

As mentioned already in Para 2, the Institute does not forward the testing material directly to the Air Force research institute in BRESLAU, but through the Ministry of Chemistry in WARSAW. However, in Nov 57, [redacted] direct contact would be established between the two institutes and that testing material would be sent directly from GLIWICE to BRESLAU.

50X1-HUM

The testing consists of taking infrared photographs of objects painted with infrared-proof paints. Test results are returned to the Institute in the form of photographs; source has no knowledge of written reports concerning test results returned to the Institute. The infrared photographs then are used in the course of further research work.

Infrared-photographs taken of conventional types of camouflage paints began to flow to the Institute as early as spring 1957. From that time on, the Institute has been receiving regularly infrared photographs taken both of conventional types and infrared-proof camouflage paints. Small objects painted with infrared-proof camouflage paints are photographed and tested in BRESLAU by the Air Force research institute; larger surfaces painted with infrared-proof camouflage paints are photographed and tested on the Hel Peninsula. The small objects are usually photographed together with objects painted with conventional types of camouflage paints (non-infrared-proof). [redacted] no information with respect to the source of infrared light, to the camera, or to the photographic elements used. However, she knows, that, in testing infrared-proof paints on large surfaces the infrared photographs were taken from the air. Indication concerning the altitude of the aerial photographs is second-hand information [redacted]

50X1-HUM

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for authority to reproduce will be directed to the Chief of Staff, G3, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. The transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**

DA FORM 1048-1  
1 Oct 52

REPLACES OCS FORM 1048-1 APR 52, WHICH MAY BE USED.  
CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

**CONFIDENTIAL**

50X1-HUM

**CONFIDENTIAL**

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SR 386305-9)

PAGE  
8

50X1-HUM

[redacted] all objects to be tested were photographed from the air. The objects to be tested were an armored vehicle painted with infrared-proof paint, and a soldier dressed in a uniform treated with infrared-proof paint. These two objects were placed on grass-covered ground and were surrounded by a straw stack, and patches of trees and bushes. The individual who was in the airplane taking the infrared photographs stated to source that the altitude of the airplane was such that she could hardly see the soldier in uniform, but was able to see well the armored vehicle and the vegetation which, at that time, was of a brown-yellow color. No further information could be secured [redacted] concerning the technical details of the infrared photographic process.

50X1-HUM

b. Description of the Infrared Photographs

During the period from Mar 57 to Jul 57, the infrared photographs received from BRESLAU and from the Hel Peninsula showed, that, in the majority of cases, the camouflage paints were not infrared-proof at all, and that only a very small number of photographs showed slight infrared-proof effect of the paints used. Real and positive improvement was achieved only in Jul 57 when the inorganic pigments used in the research process up to that date were replaced by organic pigments. Paints produced after Jul 57 showed infrared-proof characteristics to an increasing extent, and infrared photographs taken after that date contained evidence of that. However, until [redacted] Nov 57, none of the paints produced and tested proved to be fully infrared-proof. During the period from Jul 57 to Nov 57, some 18 different paints were developed and [redacted] rated as infrared-proof after being tested. Their basic camouflage colors were yellow and brown, plus the various shades of these basic colors. [redacted] each of these 18 paints is infrared-proof, however, to a different extent. Most infrared-photographs she observed show at least some trace of the objects tested, and in many cases the objects or their silhouettes are discernible. However, [redacted] there were photographs taken on which the tested objects are visible to such a slight extent only that, for all practical purposes, they can be considered invisible. Actually, out of the 18 paints submitted for test by Nov. 57, seven were accepted by the Air Force as infrared-proof. This acceptance is an indication that the Air Force considered seven paints as sufficiently infrared-proof for military use. On the other hand, the fact that the research work was not halted but was ordered to be continued, is an indication that the testing results are not completely satisfactory. All accepted infrared-proof camouflage paints are inflammable, and to source's knowledge research work did not encompass the mission of eliminating this characteristic of the paints.

50X1-HUM  
50X1-HUM

50X1-HUM  
50X1-HUM

6. Production Plans

It is planned that the seven infrared-proof camouflage paints accepted by the Air Force would be put into production in 1958 within the scope of the 1958 production plan of the chemical industry. No information is available as to what plants would participate in the production. However, source states, that the Institute in GLIWICE is scheduled to furnish, in 1958, personnel to all those chemical plants which are scheduled to produce the infrared-proof paints. The mission of these personnel would be to assist the management and labor force of the respective plants in setting up the production of this new product. In this respect, the Institute would act within the scope of its regular activities, for, whenever a new product is put into production, the Institute fulfills the same functions as described above.

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for authority to reproduce will be directed to the Chief of Staff, G2, Department of the Army.

CLASSIFICATION  
**CONFIDENTIAL**

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

DA FORM 1048-1  
1 OCT 55

REPLACES OCS FORM 17C, 1 APR 53, WHICH MAY BE USED.  
CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

**POOR QUALITY ORIGINAL**

50X1-HUM

DA INTELLIGENCE REPORT  
(Use this form only in accordance with instructions in SR 380-205-3)

**CONFIDENTIAL**

PAGE  
9

7. Military Visitors

The Institute in GLIWICE is visited regularly once each month by two Air Force and two Army officers in uniform, whose names are not known to source. During the entire period of the research project, Jan 57-Nov 57, the visits were always made by the same persons. The Air Force officers were from the Air Force research institute in BRESLAU; and source believes the army officers came from WARSAW. Concerning the ranks of the visiting officers, source heard that they were captains and majors. The visiting officers usually spent one or two hours in the Institute, and discussed things with the director, KLONOVSKI, Professor Dr. (fnu), or with the chief of all research projects, TANEVSKI, Dr (fnu), but they never entered the laboratory which was the site of the infrared-proof camouflag& paint project, [redacted]

50X1-HUM

8. Summary Information on the Research Institute

The Institute's full name is "INSTYTUT FARB i LAKOW w GLIWICACH". Until Nov 57, it was located at Studzienna 8. In Nov 57, the Institute moved into a new location at Gornych Walow, (Oberwald Strasse), number unknown.

[redacted] this move was very necessary because the old location was a dilapidated, barrack-type building, entirely unsuitable to serve as housing a chemical research institute, [redacted] for example, that the laboratory where research for the infrared-proof paint was conducted was a basement room without windows or proper ventilation, and that other working conditions in the room were very much below standard. Most of the other laboratories and working rooms, as well as the offices, had similar sub-standard working conditions. This fact [redacted] greatly hampered the work of the Institute. The new site of the Institute is a fairly modern building designed for the purposes of the Institute. [redacted] the move into the new building is a great improvement and it would not fail to facilitate and increase the production of the Institute.

50X1-HUM

50X1-HUM

50X1-HUM

50X1-HUM

50X1-HUM

The Institute is subordinated to the Ministry of Chemistry in WARSAW. Its director is KLONOVSKI, Prof, Dr Sigmund, a very able person and an expert in the field of chemical research. His assistant and chief of all research projects is TANEVSKI, Dr (fnu), whom source also rates as an expert chemist:

The Institute is organized into the following six departments:

Physical-Chemical Department (PHYSISCHE-CHEMISCHE ABTEILUNG), headed by FRITSCH, Maria, Frl.

Technological Department (TECHNOLOGISCHE ABTEILUNG), headed by SASOVSKI, (fnu)

Department of Asphalts and Lacquers (ASPHALT und LACK ABTEILUNG), headed by KNOPF, (fnu), a chemical engineer with diploma.

Analytical Department (ANALYTISCHE ABTEILUNG), headed by KASANOVSKA, (fnu), Frau, nee POPONEK.

Department of Resins (HARZ-ABTEILUNG), headed by LIPZ, (fnu), Frau, nee PUSTALOV.

Testing Department (VERSUCHS-ABTEILUNG), headed by LACH, (fnu), Frau, a chemical engineer with diploma, a person of German nationality.

NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for changes to regulations will be directed to the Assistant Chief of Staff, G-2, Department of the Army.

CLASSIFICATION

NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

**CONFIDENTIAL**

DA FORM 1048-1 REPLACES OCS FORM 1707 APR 55 WHICH MAY BE USED. CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

**CONFIDENTIAL**

50X1-HUM

**CONFIDENTIAL**

PAGE

10

DA INTELLIGENCE REPORT  
(Use this form only in accordance  
with instructions in SI 380-305-3)

The labor force of the Institute includes 78 persons, both administrative and technical personnel, the majority of them female workers and employees.

The main activity of the Institute consists of conducting research work in the field of paints, asphalts and resins, and producing sample products for commercial use. These products, then, are sent, along with personnel, to the various chemical plants, and their mass-production is initiated.

In summary, the Institute is engaged in research work, but also has the responsibility of assisting the individual plants in producing the researched products.

COMMENTS:

THIS IS RAW UNEVALUATED INFORMATION

50X1-HUM

1 Inclosure:

- 1. Location Sketch of the Hel Peninsula



NOTE: Reproduction of this document in whole or in part is prohibited, if SECRET or TOP SECRET, except with permission of the issuing office. All requests for authority to reproduce will be directed to the Chief of Staff, G-2, Department of the Army.

CLASSIFICATION

**CONFIDENTIAL**

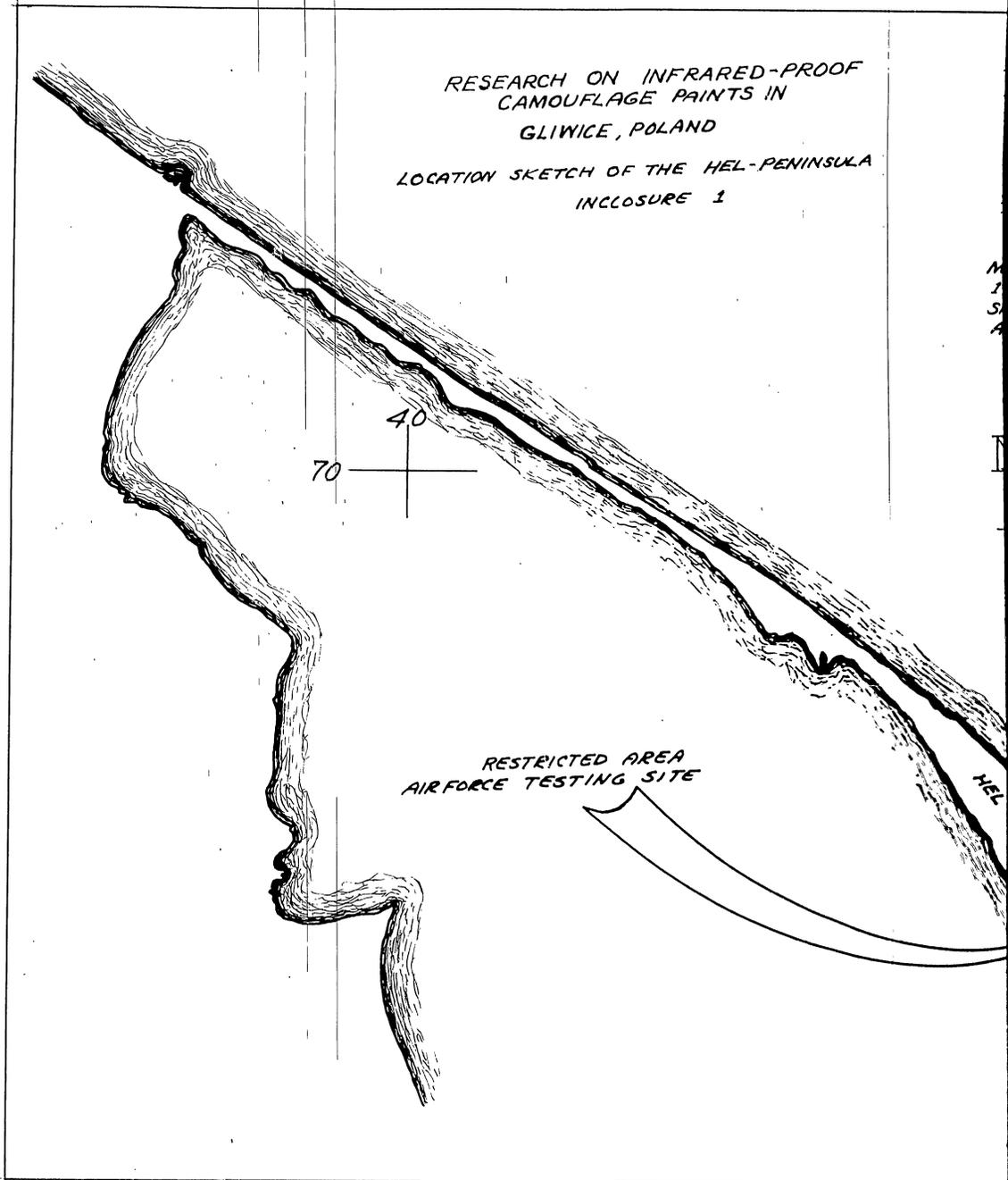
NOTE: This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 49 U.S.C. 31 and 32, or criminal transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

DA FORM 1043-1  
1 OCT 53

REPLACES OCS FORM 17C, 1 APR 53, WHICH MAY BE USED.  
CAUTION - REMOVE PROTECTOR SHEET BEFORE TYPING.

CONFIDENTIAL

RESEARCH ON INFRARED-PROOF  
CAMOUFLAGE PAINTS IN  
GLIWICE, POLAND  
LOCATION SKETCH OF THE HEL-PENINSULA  
INCLOSURE 1



CONFIDENTIAL

CONFIDENTIAL

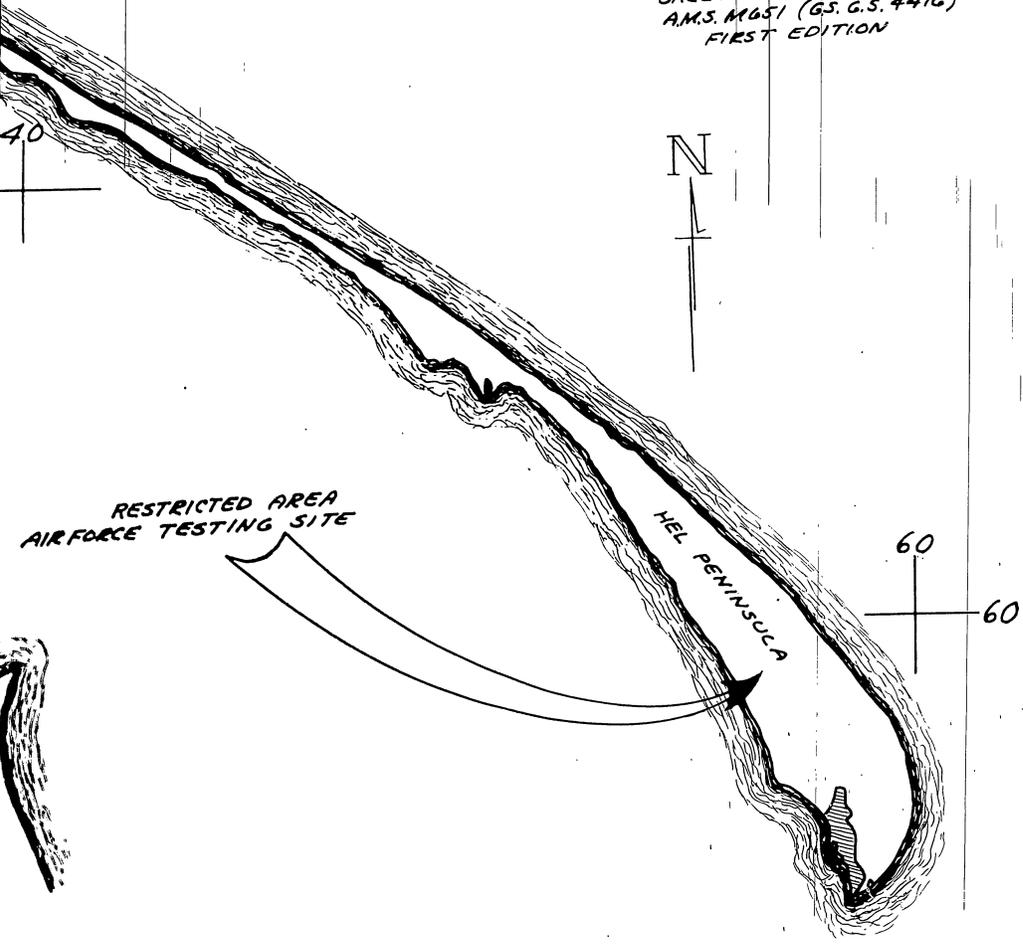
RESEARCH ON INFRARED-PROOF  
CAMOUFLAGE PAINTS IN  
GLIWICE, POLAND



50X1-HUM

LOCATION SKETCH OF THE HEL-PENINSULA  
INCLOSURE 1

MAP OF POLAND  
1:100,000  
SHEET J-13, DANZIG  
A.M.S. M651 (G.S. G.S. 4416)  
FIRST EDITION



CONFIDENTIAL